Adaptive optics 3-D instrument opens window to eye disease

Yuhua Zhang, Ph.D., was studying for his doctorate in precision metrology and instruments engineering at Tianjin University in China some 15 years ago when his focus quickly changed.

Zhang’s mother-in-law developed sudden, severe bleeding in her left eye, and he quickly learned that doctors did not have the equipment to produce high-resolution images of the retina. The pathology of her mother-in-law’s eye trouble was complicated, and it limited the physicians’ understanding of her disease. He also learned that early detection of eye disease often is not possible.

Zhang’s focus then shifted from learning to design cameras, telescopes and microscopes to ocular imaging, which he since has helped pioneer. Now, Zhang, an assistant professor of ophthalmology, has developed an adaptive-optics, 3-D imaging instrument that provides an unprecedented view of the human eye that ophthalmologists can use to identify and treat human-eye diseases.

“We have developed, to our knowledge, the fastest practical adaptive optics for the living human eye,” Zhang says of the adaptive-optics, scanning-laser ophthalmoscope (AOSLO), now in its third generation. “Imaging the retina in the living human eye with high resolution is important both for fundamental research and clinical patient care, and the development of this instrument and the excellent performance it has obtained has positioned UAB at the forefront of this emerging technology — technology that is available at only four other centers worldwide.”

The AOSLO will help ophthalmologists detect age-related macular degeneration, diabetic retinopathy and glaucoma, which will help them treat the diseases earlier and slow their progression. The instrument also provides unmatched images of rare eye diseases at the cellular level, which should give researchers and physicians a greater understanding of the pathology of these diseases.

“Dr. Zhang’s research truly is novel and cutting-edge,” says Lanning Kline, M.D., chair of the Department of Ophthalmology and associate professor of ophthalmology.

UAB researchers, led by Assistant Professor of Ophthalmology Yuhua Zhang, have developed the fastest practical adaptive optics machine for the human eye. The adaptive optics scanning laser ophthalmoscope provides an unprecedented 3-D image of the human eye and can be used by ophthalmologists to identify and treat human eye diseases.

PE students learn life lessons in new service-learning course

Jessica Dellitalia says she didn’t expect to learn very much when she enrolled in her PE 450 Physical Activity Programming for Individuals with Disabilities course this past spring. Dellitalia, now 24, had worked with individuals with disabilities at The Lakeshore Foundation since she was 15 years old.

“I really didn’t know what I was going to learn that I didn’t already know — that’s my honest opinion,” Dellitalia says. “But I learned so much. I learned about people with cerebral palsy and deafness, and I didn’t know a lot about those things. But I also learned that I know people with disabilities, but I didn’t know much about their diagnosis and what physically comes with that.”

Dellitalia and five classmates learned these things by working one-on-one with developmentally challenged young adults through a service-learning partnership course between the School of Education and Triumph Services Inc., a 501(c)3 nonprofit organization that exists to provide community-based support to individuals with developmental disabilities who are trying to live independently.

“Dr. Menear thoroughly encouraged us to try something new, and I was a little nervous at first. But I knew I needed to find physical activities to engage participants, and I needed to find trainers who are comfortable working with individuals with disabilities,” Dellitalia says. “That was exactly the type of environment our students needed. It was the perfect partnership, and it let me supervise our fitness leadership and exercise science students as they learned on the job.”
CMA applications now available online; must be received by June 18

The 2010-2011 Application for Certification for AMA PRA Category 1 Credit for Regularly Scheduled Sessions is now available from the Division of Continuing Medical Education. Completed applications must be received by June 18. More information about CME certification can be found at www.cme.uab.edu or call 934-2687.

Business graduate earns top score on Alabama CPA examination

School of Business graduate Jim Driscoll has been recognized as the 2009 CPA Exam High Scorer for the state of Alabama, becoming the 10th UAB graduate to earn the honor in the past 14 years.

Driscoll’s achievement was recognized during the Alabama State Board of Public Accounting spring CPA certificate presentation ceremony in Montgomery May 10. Debbie Tanju, Ph.D., a UAB accounting professor, says Driscoll’s CPA exam performance continues an extended streak of excellence by UAB graduates.

“In addition to our emphasis on practical experience through internships and career services, the faculty in the UAB Department of Accounting and Finance is dedicated to instruction that prepares our students for the rigors of the CPA exam,” Tanju says. “We stress the importance of performing well on the exam in order to have the best opportunity for a successful career in accounting.”

Driscoll, who obtained his UAB bachelor’s degree from the Department of Accounting and Finance in August 2009, completed all four parts of the CPA exam in the fall of that year. He is a contract employee responsible for external audits in the UAB Department of Patient Financial Services.

“I feel like the UAB accounting program’s curriculum prepared me well and was set up to build students’ confidence heading into the CPA exam,” Driscoll says. “My classroom experience was further enhanced by the deep personal investment made by the School of Business faculty; they really wanted us to succeed and perform well on the exam.”

May 31 UAB Reporter is final print edition until fall semester begins

The May 31 issue will be the final UAB Reporter edition to be printed and distributed through campus mail until fall. Summer editions will be posted online for faculty and staff to print and download at their convenience. Regular news updates also will be posted at Reporter Online and distributed through The eReporter.

Call for noms: Norwood Award

Nominate a woman for the ninth annual Janet L. Norwood Award for Outstanding Achievement by a Woman in the Statistical Sciences. Eligible individuals are women who have completed their terminal degree, have made outstanding contributions to the statistical sciences, and, if selected, are willing to deliver a lecture at the award ceremony. Additional details about the award are online at www.soph.uab.edu/sag/norwoodaward/aboutaward. Electronic submissions of nominations are accepted and encouraged. Deadline is Friday, June 26.

Get your tickets now to enjoy the new UAB summer concert series

The new UAB’s Alys Stephens Center summer concert series is under way and includes just-announced shows from Sam Bush June 25, Mary Chapin Carpenter July 23 and Jonny Lang Aug. 28. Some of the fun, casual concerts also will include a free, summer-themed “Summer Tunes, Brew and Barbecue” party before the show; two shows will feature opening acts. Call 975-2787 or visit www.AlysStephens.org for tickets or for more information.
CORD student wins best in show chasing kudzu question

A science project begun four years by a high-school freshman involved in the Central Alabama Regional Science Fair (CORD) programs landed him first place and best in show awards in the Plant Sciences division at the Intel International Science Fair in California earlier this month.

Mason McFarland, a senior at the Jefferson County International Baccalaureate School, initially discovered that planting sweet potatoes next to kudzu would inhibit kudzu’s growth. The question McFarland has been trying to answer ever since is “What does the sweet potato possess that stops the growth of kudzu?” Each year McFarland has completed another iteration trying to answer why the sweet potato causes the change in the plant’s growth pattern.

“Mason has worked closely with us on the development of the project the past four years,” says Mike Wyss, Ph.D., CORD director. “He made this discovery on his own, and he really pursued it heavily. He sought individual insights here at UAB and around the nation who could help him move the project forward. Each time he found a new challenge he needed to meet, he would find the collaborators who could help him.”

McFarland’s project won this year’s Central Alabama Regional Science Fair and the state science fair before he entered the international competition. This is the second time in as many years a CORD student won first place at the international competition, but McFarland is the first to win best in show in some time, Wyss says.

Of the six Alabama competitors to win an award at this year’s international competition, four of them came from UAB’s Central Alabama Regional Science Fair. Nine students that competed in the Central Alabama fair qualified for the international competition, which features more than 1,600 students competing from more than 60 countries.

McFarland, who will attend UAB this fall, received an $8,000 scholarship for his best in show finish. The Central Alabama Regional Science Fair and the ICB also award cash prizes.

McFarland contacted Jacqueline Nikles, Ph.D., associate professor of chemistry, for analytical help with his project. Nikles talked with Steven Harville, Ph.D., a research associate in the Department of Chemistry, and arranged for McFarland to bring samples for Harville to run on the department’s gas chromatography-mass spectrometry.

“We explained to Mason what was going on with the instrumentation, and he occasionally sent me papers and things for me to look over,” Nikles says. “He would call or send an e-mail occasionally and ask what I thought, but I really didn’t do a lot. The kid pretty much did it on his own. He’s very bright. He’s been accepted into the Science and Technology Honors Program, so he’s a pretty smart kid.”

Both Wyss and Nikles say McFarland is intrinsically motivated, which has facilitated his research efforts from the beginning.

“You’ll see many students where their parents seem to be the driving force behind their whole project, but that wasn’t the case with Mason,” Wyss says. “I think I’ve talked to his parents once. They were never the intervening force or the motivation that he had to do this. He found something interesting, and he wanted to know why it worked.”

The sweet potato question still is unanswerable, but McFarland still is investigating.

“He’s getting closer to the answer,” Wyss says. “He still doesn’t quite have it. But there’s no question it would make a good dissertation.”

CAMPUS NEWS

PHYSICAL EDUCATION

CONTINUED from page 1

The purpose of the PE 450 course is to provide students with knowledge and skills needed to meet the unique fitness and physical activity needs of individuals with various disabilities.

Through class discussions, course assignments, observation of the services, and learning experiences, students learned to design and implement personal training and fitness programs and disability or sports recreation programs for individuals with disabilities based on assessments of health-related strengths and needs.

“I learned quickly that I was apprehensive about putting together an appropriate workout,” Dellitalia says. “I never had that, before. I primarily did recreation activities with people with disabilities. But Dr. Menear taught us to design, implement and modify physical activities and activities of daily living in order to maximize someone’s participation in physical activities. She really helped ease my mind, and I think the forms and tools she gave us are definitely something I can use later when I’m working with people with disabilities as my job.”

Menear says a big part of the idea behind the course was to help students develop an enhanced appreciation of the community issues and needs when it comes to serving those with disabilities. She also wanted to increase their involvement in community affairs and their understanding of how the knowledge, skills and abilities learned in the course apply to everyday life.

Menear believes the course did all of those things and more. Dellitalia was the only student of the six in the class who had any experience interacting with persons who have developmental disabilities, so the course challenged students to step outside of their comfort zone and learn the gifts and strengths their partners possessed.

“The idea of a disability can make many students nervous, and many of Kristi’s students were nervous in the beginning,” Stephens says. “At the end of the course, one student after another said, ‘I did not even see the disability. I found a friend.’ To me that is the biggest deal. We’re giving our participants healthier lifestyles because of this collaboration.”

“Many students that competed in the International Science Fair in California earlier this month, McFarland will attend UAB this fall. The Central Alabama Regional Science Fair and the ICB also award cash prizes.

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The course now will be required for all fitness leadership majors and an approved elective for exercise-science majors.

“Fitness-leadership majors generally become personal trainers and exercise-science majors pursue physical and occupation therapist positions or continue training in graduate and medical school,” Menear says. The course could not provide the type of instruction if not for Triumph’s partnership. Triumph was founded by Stephens in 2007 and started with 16 adults. It is now serving more than 70 adults in the Birmingham community, giving their partners life coaching, helping them find and keep jobs, providing a weekly social group and individual and group therapy to address any anxiety or depression a person might have.

“We provide whatever supports are necessary for adults for living and work independently in the Birmingham area,” Stephens says. “One of our biggest goals is to change stereotypes that surround disabilities. We want to teach people through social activities and job matches that these folks are remarkable and can add a lot to their life if given the chance.”

For more information on Triumph support services, visit www.triumphbirmingham.org.

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Schumacher part of task force briefing Congress on homeless

A 20-year career spent investigating homelessness and treatment for drug addiction and its consequences led Joseph Schumacher, Ph.D., professor in the Division of Preventive Medicine, to a Congressional briefing.

Schumacher was part of an American Psychological Association’s (APA) Public-Interest Government Relations Office Task Force on Psychology’s Contribution to Ending Homelessness. The group hosted a Congressional briefing May 4, during which they urged Congress to enact four specific pieces of legislation moving through the House.

The briefing covered critical areas: applying evidence-based research to end substance abuse among those without homes; addressing the housing and psychological needs of families with children; and more comprehensive approaches to providing supportive housing through the Temporary Assistance for Needy Families program and Medicaid.

“We met in the Capitol building, and it was a packed room,” Schumacher says. “Our hope and expectation is that the four funding bills we were advocating will get their budget or an increased budget. These critical programs would make necessary steps to ending homelessness through prevention and provide supportive housing to those most in need.”

Schumacher was appointed to the task force by past APA president James Bray, Ph.D., an instructor in the Department of Family & Community Medicine at the Baylor College of Medicine.

Bray says Schumacher was selected because of his outstanding contributions to research on helping homeless people confront substance abuse problems.

“Dr. Schumacher’s research is cutting-edge and has the potential to have national and international implementation,” Bray says.

“He is working with several other federal agencies to implement his research in the field, and he brought his extensive knowledge of working with the homeless to the task force. His work was highly received during the Congressional Briefing.”

As past-president of the APA, Bray had an opportunity to develop a special project, and he chose to create the task force on the role of psychologists in ending homelessness. He selected five people with varied interests and expertise in research, practice and policy and a background of working with adults, homeless people and families.

The group spent a year together and changed the APA policy on defining homelessness and updated psychologists’ role on working with homelessness.

“We surveyed psychologists and got feedback from them on their role, interests and barriers in working with people who are homeless,” Schumacher says.

Ultimately, the members of the task force and an invited advocate with a history of receiving successful services for homelessness and drug addiction briefed and held a panel discussion with the Congressional Cauusc on Homelessness, chaired by Rep. Alice Hastings (D-Fa.) and Rep. Judy Biggert (R-Ill.).

Economy making more homeless

Schumacher has researched and studied homelessness since his graduate work in the Department of Psychology at the University of Alabama. He trained under his mentor Jesse Milby, Ph.D., director of the Medical/Clinical Psychology Doctoral Program, when Milby was the chief of psychology at the Veterans Administration Hospital.

They worked with people who had addictive disorders and were experiencing homelessness. Milby joined UAB soon after and recruited Schumacher to UAB while he was finishing his internship at the University of South Florida. Together they worked on one of the nation’s first National Institute on Drug Abuse clinical trials in 1991.

They recently published an article in the American Journal for Public Health on the effects of sustained abstinence among treated substance-abusing homeless persons on housing and employment.

Schumacher says homelessness in the United States was improving until the recent economic troubles that have the country at 10 percent unemployment. The economic downturn has created a new wave and a new type of homelessness.

“All homeless are not panhandling, mentally ill and addicted to drugs,” Schumacher says. “The new homeless of today had a job, a home and a car six months ago. Now that is gone, and their health is at risk.”

If someone has to live with another person or group of persons — including their parents — and are unable to pay rent they are considered homeless, according to The Stewart B. McKinney Act, the first and only major federal legislative response to homelessness.

“If unemployment and foreclosures are increasing, homelessness is increasing,” Schumacher says. “Homelessness is simply defined as not having your own home. Many think of homelessness as someone homeless who haven’t had a place to live for 20 years. To be honest, that really represents a very small percentage of the people who are homeless — only about 10 to 20 percent. The problem is more diverse than that. Homeless families and children are also on the rise.”

Schumacher’s passion for his research into homelessness and drug addiction is evident when he speaks, a fact that Bray says made him an ideal task force member. While the task force has wrapped up the bulk of its work, Schumacher says they are completing articles for publication. Now, he says, they will watch the progress of the bills making their way through the House.

“We really don’t want to see them cut,” Schumacher says. “We’ll follow those bills and see that they get funded.”

School of Nursing Alumni honor colleagues, students

The School of Nursing Chapter of the UAB National Alumni Society hosted its eighth annual alumni night May 11 as an opportunity for graduates to reconnect with classmates, colleagues and faculty and to honor achievement. Three alumni received the Jo Ann Barnett Award for Compassionate Nursing Care, and awards were presented to the graduate and undergraduate classes of the year.

The event also celebrated the school’s 60th anniversary and the alumni chapter’s 30th anniversary with the viewing of a six-decade history walk celebrating its achievements.

The Jo Ann Barnett Award for Compassionate Nursing Care was presented to nurses in administration, education and acute/critical care. The award, established in 2002, honors the memory of school of nursing alumna Jo Ann Barnett, who was a neonatal nurse practitioner at the UAB Hospital’s Regional Newborn Intensive Care Unit and several Birmingham-area hospitals. In June 2002, at age 55, she lost her battle with cancer.

Award recipients:

For administration: Debra B. Ragan, associate vice president for surgical services at UAB Hospital. Ragan has held positions with increasing responsibility at UAB Hospital for 35 years — including staff nurse, nurse manager and multiple director positions. Her dedication as a clinician, leader, counselor, mentor, team player and friend were cited as was her focus on patient care and the positive tone she sets in all that she does.

For acute/critical care: Deborah Laney, extracorporeal membrane oxygenation (ECMO) coordinator and neonatal nurse practitioner at Children’s Hospital. Laney has been with Children’s Health System for 36 years. Its ECMO center is the only one in Alabama and treats the state’s tiniest patients with respiratory failure. Laney helped Children’s Hospital become the first ECMO center in the country to pioneer a model in which one RN cares for the ECMO pump and the patient. She also was honored for her patient- and family-centered approach to nursing care and her commitment to quality improvement through nursing research.

For education: Laura Young, director of education, hospital division, at Noland Health Care Services. Young’s duties include planning, development, coordination and implementation of education for five Noland Health Care Services hospitals. She was honored for her leadership and effort to provide the best environment and learning techniques to ensure compassion, quality and integrity are part of the educational process.

TBSN Award for Student Excellence also was presented to Sarah Frazer, and Larry Slaton was named Outstanding Doctoral Student of the Year.
A new documentary film about homeless Americans by Associate Professor of Sociology Jeffrey M. Clair, Ph.D., and UAB alumna Jason Wasserman, Ph.D., will debut at 7 p.m. Thursday, June 3 in The Speakeasy, 1920 Third Ave. North in Birmingham. Tickets are $6 and will be sold at the door; proceeds will benefit the Church of the Reconciler and the Firehouse Shelter.

“American Refugees: Homelessness in Four Movements” is a gripping portrait of Birmingham’s homeless community that aims to break common stereotypes about those who live on the street. Wasserman and Clair shot the film during a four-year period to examine every aspect of homelessness — from the men and women who live on the city’s streets to the failure of public policy and social-service programs.

Wasserman, who now is an assistant professor of sociology at Texas Tech University, and Clair, who teaches in the UAB Department of Sociology and Social Work, began the project as an ethnographic study to learn the reasons some homeless people choose to live outdoors instead of in shelters. The project resulted in a book, *Home on the Street: People, Poverty and a Hidden Culture of Homelessness*, which they published earlier this year.

“In this film, we are trying to bridge a variety of issues addressed in the book with an artistic presentation that helps convey the emotional depth of homelessness in a way that is difficult with text,” said Wasserman.

“Like the issue of homelessness itself, the film is chaotic and multidimensional, dark in many respects, but with an underlying hopefulness,” Wasserman said.

As does the book, the film suggests that many programs meant to help the homeless have instead alienated them from society through assumptions that most homeless people suffer from mental illness or substance abuse. As a result few social services exist for those who are homeless due to economic hardships or tragedy. The film features poignant interviews with homeless individuals and shelter directors, religious leaders, outreach workers, city officials, law enforcement, sociologists, activists and graffiti artists.

“We hope that researchers, service providers and community leaders who watch the film will see viewpoints that are different from their own, particularly those of the homeless,” Wasserman said.

The film is both academic and artistic, with images by photographers such as local artist Melissa Springer. Wasserman and Clair said they eventually plan to submit the documentary to various film festivals and to make it available to people who have read the book and want to organize screenings in their own communities.

“We hope that audiences will begin to think in deeper and broader ways about homelessness,” said Clair. “For some people this might mean thinking about homelessness almost for the first time and to become more conscious of it, instead of the quick, canned stereotypical way most people see it.”

Learn more or see the movie trailer at www.americanrefugeesfilm.com.

**ADAPTIVE OPTICS**

CONTINUED from page 1

Ophthalmology. “It provides a whole new way of looking both at normal anatomy and a variety of potentially blinding eye disorders.”

Zhang came to UAB in 2008 to establish an adaptive-optics program. Adaptive optics is a technology used to improve the performance of optical-imaging systems by reducing the effects of rapidly changing optical distortion. It first was created to help high-powered telescopes see clearly through the turbulent atmosphere in deep space.

The technology has been turned inward, and adaptive optics enables retinal imaging systems to compensate for aberrations on the cornea and lens of a patient. This leap in technology provides the ability to visualize living cells within the living human eye.

How it works

The UAB AOSLO is equipped with two state-of-the-art deformable mirrors that work together to correct the ocular aberration in virtually any human eye. By doing so, the AOSLO can image the retinal structure in the living human eye at the cellular level.

“The images are of unprecedented quality,” Zhang says, “enabling video images of microscopic blood flow and photoreceptors for diagnosis of eye diseases.”

Zhang says the AOSLO can obtain excellent retina images showing well-resolved cone photoreceptors in the macula, the central region of the retina that houses the densest pack of the cones, the cells forming the fine and color vision. The ability to image retinal structure and function at the cellular level in such a high quality is a major achievement. Zhang says "With conventional clinical retinal imaging methods, we can not image these cells and the fine blood vessels." Zhang says "But with the AOSLO, we have the capability of directly imaging cones and the finest blood vessels. Furthermore, by controlling the intensity of the light beam forming the scanning pattern, the AOSLO can project clear visual stimuli with well-defined size, structure and intensity onto the retina. This will facilitate test of the retinal function. The high-resolution images will enable us to diagnose diseases at an earlier stage and provide sensitive evaluation of the treat-ment efficacy at the cellular level."

**AOSLO history**

Zhang completed an earlier version of the AOSLO while working at the University of California at Berkeley with Austin Roorda, Ph.D., a professor of optometry. There they implanted a micro-electrical, mechanical system-based, adaptive optics into a scanning-laser ophthalmoscope and developed the AOSLO. Several problems limited the AOSLO’s use in clinic diagnosis: slow adaptive optics limited the image-acquisition speed and the ability of the machine to achieve its full image-quality potential.

Zhang’s goal when he first set up his UAB lab was to develop a new AOSLO and make it capable of high-dynamic range, ocular-aberration compensation and high-speed imaging acquisition. The AOSLO is ready for clinical studies now that goal has been achieved. Zhang is working with Cynthia Owsley, Ph.D., Christopher Girkir, M.D., Christine Curcio, Ph.D., and Douglas Witherpoon, M.D., to study age-related macular degeneration and primary open-angle glaucoma.

“They all are world-renowned scientists and physicians,” Zhang says. “We also will study other common medical and neurologic conditions, including hypertension, diabetes, multiple sclerosis and Alzheimer’s disease.”

Zhang says the support from Klune and career-development mentors and collabora-tors Owsley, Girkir, Curcio and Judith Kapp, Ph.D., has made the development of the AOSLO possible. Also crucial to the effort, he says, was the support from Vice President of Research and Economic Development Richard Marchase, Ph.D., and Assistant Vice President of Research Charles Prince, Ph.D., and Vision Science Research Center Director Kent Keyser, Ph.D.

“The support I’ve been given has been unbelievable,” he says. Zhang’s work is supported by grants from the EyeSight Foundation of Alabama, International Retina Research Foundation, Buck Trust of Alabama and Songs for Sight.

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CDC’s White fills dual roles of teacher, nurturer-in-chief

Taking a child to daycare is one of the most difficult daily tasks for a working parent. Caroline Harada, M.D., assistant professor of medicine, experiences the remorse every day when she drops her child off at the UAB Child Development Center. “As a full-time physician, I often feel very guilty about leaving my child with others all day long,” Harada says. But Harada feels fortunate knowing her son is in the care of Susie White, the Waddlers child-care teacher at the center. “My son is always happy to be there,” Harada says. “This make a tremendous difference to me. It is a great comfort to me to know my son is happy in Miss Susie’s care, and that he is stimulated with new challenges and activities that she designs and coordinates.”

Parents and co-workers praise White’s patience, organization and loving attitude as key traits that make her worthy of May’s Employee of the Month honor. White has been a teacher at the Child Development Center for 10 years. She cares for children ages 6 to 18 months, and White says she wouldn’t want to do anything else. “I love my babies,” she says, “and I love what I do. The most rewarding thing is seeing the smiles on their faces. It means so much to me to see that every day.”

Lauren Ritchie, web content coordinator in IT Support Services, takes her daughter to the center. Ritchie says she knows White’s job can be difficult, but says she displays grace and enthusiasm toward the children every day. “I can’t imagine having anyone else there for my child,” Ritchie says. “My heart melts in the mornings when I walk into the room holding my baby and she reaches for Miss Susie to take her. I know solely from this interaction that she loves my child just as she would her own.”

White is the mother of two, 24-year-old Darryl and 12-year-old Eric. She under- stands the apprehension parents have when they must entrust their child’s care with someone else. White says she does her best to reassure her parents that their children will be healthy, safe and happy while they are in her care. “From day one, when I speak to my par- ents, I tell them their kids are my kids. Me telling them that and showing them that makes a big difference.”

Kristi Chambers, director of the Child Development Center, says White has developed outstanding relationships with the parents of the children in her class-room.

Chambers says White works with parents to meet their needs and honor their prefer- ences, puts first-time parents at ease by helping them better understand the states of development their children are experi- encing and eases them through the transi- tion from home to school, respecting the need for proper morning goodbyes.

White also communicates with parents daily about each child through con- versations and written reports, which Chambers says fosters continuity between school and home. White is more a caretaker; however, she is an educator committed to the development of the children in her care by providing them with a variety of daily experiences. “Miss Susie is sitting on the floor reading to the babies, talking to them about their experiences or singing a song with them,” Chambers says. “She also takes the babies outside daily and has even taught them to use baby sign language.”

“Giving the babies the tools to make their wishes known reduces their own frustra- tion, which makes the classroom a happy place to be for everyone.”

White is proud of how much the babies have learned this year. “My babies know all of their body parts and the different parts of animals,” she says. “They can show you the tusk on an elephant. One of them is saying all of the other children’s names, and she can tell you all of the teacher’s names. I love to watch them grow, and it’s my respon- sibility to make sure they’re getting the development opportunities and education they need.”

In addition to her teaching and nurturer-in-chief duties, White supervises several full- and part-time assistant teachers. She ensures they are professional, vigilant and happy.

Child-care teacher Cicely Washington says White is more than a care-taker, however; she is an educator committed to the development of the children in her care by providing them with a variety of daily experiences.

White is a role model for teachers at the center. “Miss Susie has taught me things that I could only learn through experience,” Washington says. “There are still many things that I must learn, and I am thankful to have her here for help and guidance.”

Chris Kyle, Ph.D., associate profes- sor in the Department of History and Anthropology, has a son in White’s class- room. He has watched his son learn how to communicate his needs under White’s teaching and knows the nurturing she provides is comforting to the children. “She goes about her work with seemingly effortless grace, a calm rock of stability in an environment that is everything but calm,” Kyle says. “To a naïve witness, she makes the job look easy. To those of us who know better, she is a virtual miracle worker. As a parent, I know how difficult it is to maintain this level of engagement and good cheer even for a few hours, much less for a full day. But Susie and the teachers in her classroom do it day in and day out. I can think of few jobs at UAB that are as challenging and even fewer that have an impact as deep and profound as the one she has on the students in her classroom.”

If you want to nominate someone for Employee of the Month, visit www.uab. edu/news or e-mail letters of nomination to Christina Peoples at cwp@uab.edu.
Google helps research home-business cyber-scams

Two Department of Justice Sciences professors will use a Google Research Award to study cyber-scams involving the illegal use of the Google brand. Associate Professor Kent Kerley, Ph.D., and Associate Professor Heith Copes, Ph.D., will research online scams that promise consumers the chance to start their own home-based business — but leave them with bills instead of a paycheck.

For their research, Kerley and Copes will use data from the Internet Crime Complaint Center to track cyber-crimes involving the misuse of the Google brand, determine the economic impact on victims, create a demographic profile of victims and document what cyber thieves have promised unsuspecting consumers.

“We will use the results of the study to develop ways to identify these types of crimes more quickly,” said Copes. “This could then lead to public service announcements and other educational activities produced by Google to warn consumers about the misuse of its brand and resources.”

This is one of several collaborative research projects between the department, the Internet Crime Complaint Center and the National White Collar Crime Center.

Stroke-prevention procedures should be chosen based on age

A published report provides the final details on how two stroke-prevention procedures are safe and equally beneficial for men and women, though their effectiveness does vary by age, say researchers at the UAB School of Public Health, in collaboration with other North American stroke investigators.

In findings reported online in the New England Journal of Medicine (NEJM) May 26, the researchers say the age of patients made a difference in comparing the two prevention procedures.

The study is part of the Carotid Revascularization Endarterectomy vs Stenting Trial (CREST). It was presented in summary form at the International Stroke Conference in San Antonio, Texas, Feb. 26. CREST compares endarterectomy, a surgical procedure to clear blocked blood flow and prevent stroke, with carotid stenting, a newer procedure that involves threading a stent and expanding a small protective device in the artery to widen the blocked area and capture dislodged plaque.

The overall safety and efficacy of the two procedures essentially is the same with equal benefits for men and women, for patients who previously have had a stroke and for those who have not, researchers say. The most notable finding in the NEJM study is the role of patient age in accounting for differences in treatment outcomes, says George Howard, Dr.PH., chair of biostatistics and a CREST co-investigator.

“The age-difference issue is one of the most important findings of the study, though the two treatments really were practically identical in their benefit of patients at age 70, Howard says. ‘At younger and younger ages, the benefit of stenting became better and better than surgery. However, this benefit of stenting was offset by better outcomes of surgery at older and older ages.’

Low phosphorus levels linked to early African AIDS deaths

Low blood-phosphorus levels are associated with high death rates in the initial weeks of antiretroviral therapy (ART) in AIDS patients in sub-Saharan Africa, according to new research conducted at the UAB-affiliated Centre for Infectious Disease Research in Zambia and published May 18 in PLoS ONE.

Studies done at CIRDZ and elsewhere had previously shown high mortality in AIDS patients within the first 30 days of therapy.

“The scope and design of this trial do not let us conclusively claim that low phosphorus causes early mortality in these patients, but low blood phosphorus at the time of initiating ART does serve as a strong predictor of death among patients with advanced HIV disease,” said Edmond Kabagambe, DVM, Ph.D., assistant professor of epidemiology in the UAB School of Public Health and a study co-author.

Research study links Viagra to hearing loss

Research shows an association between hearing loss and the use of the erectile dysfunction drug Viagra. Findings published May 18 in Archives of Otolaryngology-Head and Neck Surgery at archotol. ama-assn.org indicate a potential for long-term hearing loss following use of Viagra and possibly other phosphodiesterase type 5 inhibitors (PDE-5i) drugs such as Cialis and Levitra, although results on those drugs are inconclusive.

“It appears from these findings that the current government warning regarding hearing loss and the use of PDE-5i medications is warranted,” said study author Gerald McGin, Ph.D, a professor of epidemiology in the UAB School of Public Health. “Though there are limitations to this study, it is prudent that patients using these medications be warned about the signs and symptoms of hearing impairment and be encouraged to seek immediate medical attention to potentially forestall permanent damage.”

UAB recipient of Pitkin Award for cancer research

The UAB Department of Obstetrics and Gynecology, jointly with the UAB Comprehensive Cancer Center, is the recipient of the 2009 Roy M. Pitkin Award from the American College of Obstetricians and Gynecologists for outstanding research published during the preceding year. UAB was honored for the study “Results from Four Rounds of Ovarian Cancer Screening in a Randomized Trial” published April 2009 in the journal Obstetrics & Gynecology by lead author Edward Partridge, M.D., Cancer Center director and president-elect of the American Cancer Society National Board of Directors.

UAB MHRC seeks applications for pilot research grants

The UAB Minority Health and Health Disparities Research Center (MHRC) invites applications for the 2010 funding of one-year developmental pilot research projects focusing on health disparities. The projects may be in the areas of basic science, clinical science, epidemiology, outcomes/health services, social and behavioral sciences, or community-based research. Eligible applicants are faculty at the levels of instructor, assistant professor, or associate professor at UAB, the University of Alabama, Morehouse School of Medicine or Tuskegee University. The letter of intent is due May 31, and the full application is due July 19. More information on the application process is available online at www.uabhrc.com.

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